

# PATENT SPECIFICATION

DRAWINGS ATTACHED

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## COMPLETE SPECIFICATION

### Trouser-press

I, JAN EDWARD P. DE DUBE, of 6, Club Drive, Massapequa, Long Island, New York, United States of America, a citizen of the United States of America, do hereby declare  
 5 the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—  
 10 This invention relates to a trouser-press which has a fixed rear plate and a front plate which is pivotally mounted about the lower edge of the fixed plate or about a line running parallel to and in the vicinity  
 15 of the lower edge of the fixed plate and which has bent pivoted levers one at each side of the fixed plate, which levers enable the pivoted plate to be moved into a forward inclined position on the one hand, and to be pressed against the fixed plate on the other hand. In this pressed position, the pivoted plate is parallel to the fixed plate. In addition, this trouser-press also comprises an auxiliary plate or clamping plate at the  
 20 top end of the fixed plate, which runs horizontally and is mounted in such a manner that it can move forwards out of the plane of the fixed plate, being lowered at the same time, while the pivoted plate is swung forwards out of its position parallel to the fixed plate. Finally, the trouser-press comprises a gripping device which is provided at the lower end of the fixed plate and the purpose and mode of operation of which  
 25 will be explained in more detail hereinafter.  
 Trouser-presses with the mentioned component parts are known per se.

The trouser-press according to the invention comprises a fixed back plate, a front plate which is pivoted about the lower edge of the fixed back plate or about a line extending parallel to and in the vicinity of the lower edge of the fixed plate, bent levers pivoted at each side of the fixed plate

which permit the pivoted plate to be moved into a swung-forward position and are designed to press the pivoted plate against the fixed plate when in a position parallel to this plate, means for holding the said pivoted plate in an intermediate position between the said swung-forward position and the position parallel to the fixed plate, a clamping plate which extends horizontally and is resiliently mounted at the upper end of the fixed plate in such a manner that, when the pivoted plate is swung forwards, the clamping plate moves out from the plane of the fixed plate towards the pivoted plate and is lowered at the same time, and a gripping device at the lower end of the fixed plate so arranged that it engages the pivoted plate when the latter is moved from the swung-forward position into the said intermediate position.

As a result of the provision of an intermediate position for the pivoted plate and the fact that the lower gripping device engages the pivoted plate, that is to say the trousers placed on this plate, when the latter is moved from the swung-out forward position into the mentioned intermediate position, the proper arrangement of the trousers on the pivoted plate is greatly facilitated as will be explained in more detail in connection with the description of constructional examples of trouser presses according to the invention illustrated in the accompanying drawings.

Figure 1 of the drawing shows a longitudinal section through a trouser press, said longitudinal section being taken along the section plane E—F in Figure 4.

Figure 2 shows a similar longitudinal section, but the illustration in Figure 2 differs from Figure 1 in that the pivoted plate is swung forwards in relation to the fixed plate whereas in Figure 1 the pivoted plate is swung into a position parallel to the fixed plate.

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- Figure 3 shows a longitudinal section taken as in Figures 1 and 2 but with the pivoted plate in an intermediate position between the two positions illustrated in Figure 1 and Figure 2.
- Figure 4 shows a view of the fixed plate as seen from the front with the pivoted plate omitted.
- Figures 5 and 6 show a detail of Figure 4 in section.
- Figure 7 shows a view of the pivoted plate from the front with the fixed plate and the other components of the trouser-press omitted.
- Figures 8 and 9 show a detail of Figure 7 in section.
- Figure 10 shows a cross-section through the pivoted plate along the section plane C—D in Figure 2.
- Figure 11 shows a side view of the pivoted plate in a modified form of construction compared with Figures 1 to 9.
- Figure 12 shows a part of a trouser-press wherein a certain component which will be explained with reference to Figures 1 to 3, is constructed in a different manner from that in the preceding figures.
- Figures 13 and 14 show in front elevation and in a view from above, how shoes can be stored at the foot of the trouser-press.
- Figures 15 and 16 show a somewhat different form of construction for storing shoes.
- Figures 17 and 18 show another embodiment for storing shoes.
- Figure 19 shows another possibility of locking the pivoted plate in its intermediate position.
- Figure 20 shows the construction of the pivoted plate associated with the arrangement shown in Figure 19.
- Figures 21 and 22 show another possible formation of components of the trouser-press.
- Figures 23 and 24 show another embodiment of the details shown in Figures 21 and 22.
- Figures 25 to 28 show in perspective, in side elevation, in rear elevation and a view from above of a modification of details of the trouser-press.
- Figures 29 and 30 show another modified construction of a trouser-press according to the invention.
- In all the figures of the drawing, corresponding components are provided with the same reference numerals.
- In Figure 1, a fixed plate is designated 10. This fixed plate is mounted in a box-like housing 11 in a manner which will be explained hereinafter with reference to Figure 4. The box-like housing 11 is secured to a foot member 12. A front plate 13 is pivotally mounted by means of a hinge 14 which is provided on an arm 15. The arm 15 is secured to the box-like housing 11.
- Also visible in Figure 1 is a pivoted lever 16 which has a handle 17 and which is connected through a resilient bar 18 to a second lever of similar construction which is not visible in Figure 1. This resilient bar will be discussed hereinafter with reference to Figure 4. At the moment, it may merely be stated that this resilient bar 18 is mounted in a member 34, which is secured to the plate 10 and which will be discussed with reference to Figure 4, in such a manner that both levers, i.e. the lever 16 and the second lever which is constructed like the lever 16, can be pivoted jointly about the axis of the bar 18 as will be explained in more detail with reference to Figures 2 and 3. Finally, Figure 1 also shows an upper clamping plate 19 and a lower clamping plate 20. These two clamping plates are secured to the fixed plate 10 through springs 21 and 22 respectively.
- Figure 2 shows that the pivoted front plate 13 can be swung about the pivot point formed by the hinge 14 into an oblique position in relation to the fixed plate 10, if the lever 16 is turned about 90° in clockwise direction about the axis of the rod 18. The pivotal movement of the plate 13 in counterclockwise direction is possible through an angle until a leg 23, through which the plate 13 is connected to the hinge joint 14, rests against the top of the foot member 12. During the movement of the plate 13 out of the position illustrated in Figure 1 into the position illustrated in Figure 2, the upper clamping plate 19, which is supported by a curved spring 21, moves forwards out of the plane of the fixed plate 10 and downwards at the same time, while the lower clamping plate 20, which is supported in a similar manner by a curved spring 22, likewise moves forwards out of the plane of the plate 10 and is raised at the same time as shown in Figure 2. The lower clamping plate 20 is secured to the spring 22 for pivoting about a pin 24. Likewise, the upper clamping plate 19 is secured to the spring 21 for pivoting about a pin 25.
- When the pivoted plate 13 is in the position shown in Figure 2, the trousers to be pressed are placed on the pivoted plate 13 in such a manner as is indicated by the dotted lines 26 to 28. The dotted line 26 represents the hip portion of the trousers and the dotted lines 27 and 28 represent the two trouser legs. The lower ends of the trouser legs extend to the lower clamping plate 20 and are inserted between this lower clamping plate and the pivoted plate 13.
- If the pivoted plate 13 is now brought into an intermediate position between the end positions shown in Figures 1 and 2, as illustrated in Figure 3, the lower clamping plate 20 is pressed against the pivoted plate 13 and therefore presses the lower ends of the trouser legs against the plate 13. Thus

the clamping plate 20 with its spring 22 here represents the gripping device. The actual trousers are no longer illustrated in Figure 3 but are still on the plate 13 as was explained with reference to Figure 2. Figure 3, like Figure 2, shows that, during the pivoting of the plate 13 into the position illustrated in Figure 2, the lower clamping plate 20 has not only moved out of the plane of the plate 10, but has also been displaced upwards at the same time in relation to the position illustrated in Figure 1. In this upwardly displaced position, the clamping plate 20 now presses the lower ends of the trouser legs against the pivoted plate 13. In the intermediate position of the pivoted plate 13, which is illustrated in Figure 3, the pivoted plate is locked by projections 29 provided on the lever 16 and on the similar lever which is not illustrated in Figures 1 to 3. The projections 29 actually engage rollers 30 which are secured at the two longitudinal edges of the pivoted plate 13 as will be explained with reference to Figure 7. In the position illustrated in Figure 3, the pivoted plate 13 is thus held so that the user of the trouser-press can now place the inserted trousers, the lower ends of which are held by the clamping plate 20, flat on the pivoted plate 13 or smooth them out and pull them tight within certain limits, with both hands. At the same time, the user will ensure that the creases in the trouser-legs coincide with the existing creases. Since the plate 13 is held by the projections 29 in the intermediate position illustrated in Figure 3, it is possible to manipulate the trousers as described in peace and comfort. This possibility of laying and smoothing out the trousers, which is not present to a similar satisfactory extent in the known trouser-presses, is further improved as a result of the fact that the upper edge of the plate 13 is roughened or that a strip 31 of a material such as rubber which adheres well to clothing material is inserted in the plate 13 at this point, as illustrated in Figure 3.

After the trousers have been placed on the plate 13 in the manner described and smoothed out thereon, the plate 13 is brought out of the position illustrated in Figure 3 back into the position illustrated in Figure 1 and is held in this position as a result of the fact that the lever 16 is turned back, in counterclockwise direction, into the position shown in Figure 1. During this pivotal movement of the plate 13, the inserted trousers very soon come into contact with the upper clamping plate 19. The surface of this clamping plate 19, which faces the plate 13, is covered with a material 32 which adheres well to clothing material, as illustrated in Figures 2 and 3, or it is itself roughened. Since the upper clamping plate 19, when the plate 13 is moved against plate 10, not only moves back into the plane of the plate 10 but at the same time also executes an upward movement, and moreover since the lower clamping plate 20 not only moves back into the plane of the plate 10 but also executes a downward movement at the same time, the inserted trousers are stretched. This stretching is better and more effective than in the known trouser-presses because here a stretching is caused by the movement of both clamping plates (19 and 20) whereas in the known trouser-presses only one clamping plate moves and stretches the trousers, which is naturally less effective. The trousers now remain in the stretched state in the trouser-press until this is opened again.

In Figure 4, the fixed plate 10 is shown seen from the front with the pivoted plate 13 omitted. This figure shows that the plate 10 can be secured by its two vertical edges to the side walls of the box-like housing 11. The upper clamping plate 19 can be seen above the plate 10 in Figure 4. The lower clamping plate 20 is likewise seen, being illustrated in the position which it assumes when the trouser-press is closed. The upper clamping plate is also shown in Figure 4 in the position illustrated in Figure 1. The springs 21 for the upper clamping plate 19 are also indicated in Figure 4. Figure 4 also shows that a member 34, in which the resilient bar 18 is mounted is secured to the back of the fixed plate 10.

Figure 5 shows this member 34 in side elevation, in section along the line E—F in Figure 4. The member 34 which is drilled through its whole length, has a bore of circular cross-section in the section plane E—F. This bore extends, with a circular cross-section, substantially over the length designated by *a* in Figure 4.

Over the length *b* on both sides of the centre portion of the member 34, the bore has an elongated cross-section as shown in Figure 6 which represents a section along the plane G—H in Figure 4.

As an alternative to the direct mounting of the bar 18 in the member 34, it may be mentioned that a rubber sleeve or a sleeve of another resilient material may be provided over the length *a* in the member 34, as indicated at 35 in Figure 4.

Figure 7 shows the pivoted plate 13 seen from the front with the omission of all the other components of the trouser press but illustrating a modified form of the bearing arrangement for pivoting this plate about a shaft 38a. This pivoted plate 13 is provided at its two vertical edges with rollers 30 which have already been mentioned with reference to Figures 2 and 3 and on which act the projections 29 of the levers 16. The rollers 30 are secured to a continuous spindle 38. The spindle 38 is mounted in a rein-

forcing member 39 provided on the plate 13. The shaft 38a extends into the foot member 12 on both sides.

- 5 This reinforcing member 39 should likewise be constructed in a similar manner to that of the member 34 already described with reference to Figures 4 to 6. This means that the member 39 comprises a circular bore in the section plane J-K in Figure 7, 10 as illustrated in Figure 8, which circular bore widens to form a hole with elongated cross section in the section plane L-M as shown in Figure 9. The sectional illustrations in Figures 8 and 9 are again side views 15 of the plate 13 in the said section planes.

The spindle 38 and hence the rollers secured thereto can yield, as a result of the construction shown in Figures 7 to 9, when the levers 16 are brought into the position shown 20 in Figure 1. This resilience of the spindle 38 may be sufficient in certain circumstances, so that a rigid bar 18 can be provided.

Figure 10 shows in section along C-D in Figure 2 that the plate 13 is provided with 25 a longitudinal groove 40 which renders it possible to lay the trousers flat on the plate 13, although the thickness of material laid out at the trouser seams is double the thickness of material at the other parts of the 30 trousers.

A necktie (knot or bow) may also be placed into the groove 40 before the trouser-press is closed and so likewise pressed.

Figure 11 shows another embodiment of 35 the invention. In order to simplify the drawing, the fixed plate 10 is represented only by a vertical chain line in Figure 11 and the only other part of the whole trouser-press shown is the pivoted plate 13a. The 40 alternative illustrated in Figure 11 differs from the embodiment previously described in that the pivoted plate is not flat as in the embodiment described above but has a gentle concave curvature towards the fixed plate 10. 45 This curvature is selected in such a manner that the apex of the curved plate 13a is substantially at the position of the reinforcing member 39 in Figure 7 and that at this point, the distance 42 between the chord 50 41 shown in dotted line and the curved plate 13a is of the order of magnitude of a few millimetres to about 1cm. This curvature of the plate 13a should disappear when the trouser-press is in the state illustrated in 55 Figure 1, that is to say when the trousers have been placed in the press and the press itself is closed. The purpose of this curvature is to provide additional assurance that the trouser legs are pressed against the fixed 60 plate 10 with substantially the same pressure over their whole length. As already mentioned, the curvature is very slight and is intended only to prevent a very slight concave curvature of the plate 13a when the trouser-press is in the position shown in Figure 1,

that is to say in the closed position, which would lead to the trouser-legs being pressed against the fixed plate 10 substantially only midway along their length, while appreciably less pressure would be exerted at the upper 70 and lower ends of the trouser-legs so that the trousers would not be sufficiently evenly pressed.

It will now be shown, with reference to Figure 12, that the lower clamping plate 20 can not only be pressed against the pivoted plate 13 by means of the force of the spring 22 as described in the previous figures, so gripping the lower ends of the trouser-legs, but that this gripping of the lower ends of 80 the trouser legs can also be brought about by means of a pedal 43. This pedal 43 is mounted on an arm 44 in a pivot 45 and presses the lower clamping plate 20, the front face of which may again be covered with 85 a clinging material or with rubber 46 as in the case of the clamping plate 19, against the plate 13 in such a manner that the lower ends of the trouser-legs are again gripped against the plate 13. If desired, the plate 20 in Figures 1 to 3 may also be provided with such a covering.

Further improvements to the trouser-press described consist in that an open container 47 for keeping cuff-links, tie-pins and the like is provided at the top of the box-like housing 11 as illustrated in Figure 1, that there is an arm 48 at the top of the housing 11 on which to hang a coat-hanger, and that two rods 50, shown in Figure 4, can be pulled out of a handle 49 which is provided on the container 47 and serve to carry 90 underwear.

The arm 48, which may also be in one piece with a coat-hanger, is adjustable by 100 means of two threaded bolts which are indicated by the dotted lines 51 and 52 in Figure 1 and which pass through slots in the arm 48 and by means of wing-nuts or the like on the threaded bolts.

A device consisting of clips 53, 54 for the insertion of a shoe in each may be secured, for example by means of screws 55, 56, to the foot member 12, as shown in Figures 13 and 14 which illustrate the foot member seen from the front and from above. The clips 53, 54 may also be in one piece as shown in Figure 15 from the front and in Figure 16 from above. The shoes are inserted in the clips shown in Figures 13 to 16, only part of the sole being supported in the clips while the insteps and heels do not require any support.

Figures 17 and 18 show, in side elevation and front elevation, a device for keeping shoes which is modified in comparison with Figures 13 to 16. The front portions of the shoes, which are indicated at 65 in Figure 17, rest on a bracket 66 which is secured underneath the foot member 12, and the heels 120 125 130

- rest on a bar 67 which may conveniently be provided with a rubber covering.
- Figure 19 shows another means of locking the plate 13 in the intermediate position which may replace the projections 29 on the levers 16 co-acting with the rollers 30. These other means comprise two springs 57 each of which is secured by means of a screw 58 to the foot member 12 and is provided with recesses 59, and two pins 61 which are secured to the longitudinal edges of the plate 13 (Figure 20) and engage the recesses 62 so that the legs 23 shown in Figure 2 can be dispensed with.
- The clamping plate 20 may also be provided with teeth 63 as shown in Figure 21 instead of with a covering which adheres well to clothing material or instead of a rubber covering.
- A similar construction is illustrated in Figure 22 for the upper clamping plate 19. The teeth 64 of the upper clamping plate must naturally be orientated in the opposite direction to those of the lower clamping plate 20.
- Figure 23 shows, in side elevation, that the lower edge of the upper clamping plate 19 and the upper edge of the fixed plate 10 may be chamfered which is an advantage because, on closing the trouser-press, the upper clamping plate does not move into the plane of the fixed plate 10 perpendicularly to said plane but rather obliquely to the plane of the fixed plate 10.
- In the side elevation shown in Figure 23, the clamping plate 19 is illustrated when the trouser-press is in the closed condition, that is to say in the condition shown in Figure 1, and in Figure 24 of the lower clamping plate 20 is shown, to which similar considerations apply and which is therefore likewise chamfered.
- Figure 25 shows a modification of the construction shown in Figures 1 to 4 of the springs 21 for the upper clamping plate 19 and the mounting of the bar 18 which joins the two bent levers 16. Figure 25, in which the box-like housing 11 of Figures 1 to 3 is replaced by two uprights 11a and 11b, again shows the fixed plate 10, the upper clamping plate 19 and the pivoted plate 13 in its intermediate position. The rollers 30 are mounted on the pivoted plate 13 arranged somewhat differently from the arrangement shown in Figures 1 to 3. The two pivoted levers 16 are likewise shown somewhat differently from those in Figures 1 to 3. These differences from the embodiment shown in Figures 1 to 3 are immaterial, however, as regards the function which will be explained with reference to Figure 25.
- Figure 25 further shows that the upper clamping plate 19 is mounted on the fixed plate 10 by means of two resilient rods 68 which have replaced the springs 21 in Figures 1 to 3. These rods rest with their lower ends in a beam 69 which is mounted on the fixed plate 10 below the rod 70 which joins the two levers 16 together.
- When the trouser-press is in the fully open state, the rollers 30 rest at the position of the arrow 71 on the bent lever 16 and when the trouser-press is in the closed state, at the position of the arrow 72.
- With this embodiment of the trouser-press, the resilient rods 68 serve a three-fold function. When the pivoted plate 13 is changed over to the fully closed position of the trouser-press, the clamping plate 19 is moved upwards as these resilient rods 68 are tensioned, so that the inserted trousers are stretched. When the trouser-press is in the fully closed condition, the resilient rods 68 press the rod 70 against the inner end of the slot 73 in which it is housed and so press the pivoted plate 13 against the fixed plate 10. In addition to these two functions of the resilient rods 68, there is yet a third function when the trouser-press is again brought into the intermediate position illustrated in Figure 3. When the pivoted levers 16 are raised, the resilient rods 68, which exert pressure against the pivoted plate 13, cause this plate to move away from the fixed plate 10, that is to say that the trouser-press goes automatically into the intermediate position as soon as the pivoted levers 16 are actuated in clockwise direction.
- In Figure 26, the trouser-press of Figure 25 is illustrated in the intermediate position, seen from the side. This figure shows, in particular, that the clamping plate 19 not only moves out of the plane of the stationary plate 10 when the trouser-press is open, but is also lowered at the same time.
- In Figure 27, the trouser press is illustrated in the closed state, seen from the back. It will be seen that the clamping plate 19 has been raised as the press was closed.
- Figure 28 shows, seen from above, that during the opening of the trouser-press, the clamping plate 19 has moved out of the plane of the stationary plate 10.
- In the embodiment shown in Figures 25 to 28, it is therefore no longer necessary to construct the rod 70 resiliently as was necessary for the bar 18 in Figures 1 to 3. Moreover, the rod 70 may be mounted in a very much simpler manner, than that described for the bar 18 with reference to Figure 4. In addition, it is no longer necessary to provide separate springs in the slots 73 as in a known trouser-press.
- Referring now to Figures 29 and 30, there is illustrated therein a further embodiment of the structure of the invention, the embodi-

ment of Figures 29 and 30 including several of the features which have been described above as well as additional features which have not been described so far. Referring to Figure 29, the trouser-press includes a support means made up in part of the foot member 112 which is supported on suitable castors and which has transverse bars 167, one of which co-acts with a rack 166 to serve as a shoe supporting structure in the manner described above in connection with Figs. 17 and 18.

A pair of side walls 111a, one of which is visible in Figure 29, extend upwardly from the foot member 112 and are interconnected by a rear wall 111. The fixed plate 110 is fixed to the side walls 111a at the front edges of the latter and extends between the side walls 111a, and these side walls 111a are formed with elongated horizontally extending cutouts 173 which are in the form of notches extending inwardly from the front edges of the side walls 111a. At their top ends the walls 111a are interconnected by the member 147 which is recessed at its top surface to serve as a receptacle for tie clips and the like, and a wall portion 109 is fixed to the rear of the member 147 and carries a rack 108 for any suitable articles of clothing. Also, a member 148 is fixed to and extends upwardly from the wall 109 and is provided with a coat hanger, in the manner described above.

In the embodiment of Figure 29, the side walls 111a are also interconnected by a transverse member 114 which is fixed to the side walls 111a and located at the bottom end of the rear wall 111. It will be noted that the upper edge of the fixed plate 110 is spaced considerably below the member 147 and the lower edge of the fixed plate 110 is spaced considerably above the member 114. A pair of angle plates 104 are fixed to the underside of the member 114 adjacent to the side walls 111a, and each of these angle plates 104 has a downwardly directed lug 105. An elongated resilient rod 100, similar to the rod 38a described above in connection with Figure 7, extends between the downwardly directed members 105 and is supported at its ends in openings in these lugs 105 so that the resilient rod 100 is rotatably supported by the angle plates 104 and at the same time is capable of yielding so as to become bowed to the left, as viewed in Figure 29 described below.

The pivoted plate 113 is fixed at its lower end and at the side facing the fixed plate to an elongated rigid member 101 which has an elongated cutout 102 extending the entire length of the member 101 upwardly from the bottom face thereof so that the resilient rod 100 can be received within the cutout 102 in the manner illustrated in Figure 29. Member 101 is somewhat shorter than the distance

between the lugs 105 and is located centrally therebetween so that beyond the member 101 the rod 100 has portions of substantial length extending between the ends of the member 101 and the lugs 105. A number of screws 103 are provided distributed along the member 101 and extending across the cutout 102.

The pivoted plate 113 is notched at its lower corners and has downwardly directed curved surfaces 106 which are located over the top faces of the side portions of the foot 112, and these top faces respectively carry small rubber pads 107 which are engaged by the surfaces 106 at the notched corners of the pivoted plate 113, so that these surfaces 106 co-act with the pads 107 to locate the pivoted plate 113 in the open position thereof illustrated in Figure 29. This pivoted plate 113 in addition carries an elongated axially bored member 139 which supports the shaft 138 on which the rollers 130 are turnable, these rollers being located just beyond the side edges of the plate 113 in the manner described above in connection with Figure 7.

A pair of springs 122 are carried by a member which is fixed to the rear surface of the fixed plate 110, and the free ends of these springs 122 are bent in a transverse direction to engage straps fixed to the rear surface of the lower clamping plate 120 so that the latter is pivotably carried by the lower ends of the springs 122 in the manner hereinbefore described. The fixed member 110 also carries at its rear surface the support member 169 on which springs 168 are fixed, which springs 168 extend upwardly from the member 169 and are linked at their ends to the rear surface of the upper clamping plate 119 in the same manner as the springs 122 are linked to the clamping plate 120. The clamping plate 119 is provided at its clamping surface with a sheet 132 of a material having a high coefficient of friction.

An elongated rod 170 extends between and through elongated cutouts 173 in the side wall members 111a and is fixed at its free ends, which are located beyond the cutouts 173 and the side wall members 111a, to the levers 116 which serve for locating the pivoted plate 113 in its open or intermediate position. As is apparent from Figure 29, the lever 116 is provided with a first bend 172 as will as with a second bend 171. When the lever 116 is turned into the position illustrated in Figure 29, the pivoted plate 113 by gravity automatically assumes the position illustrated in Figure 29, and this is the open position in which the clamping plates 119 and 120 are spaced from the pivoted plate 113. As explained before, in this position the trousers can be draped over the upper end of the plate 113 with the cuff end of the trouser legs located in the

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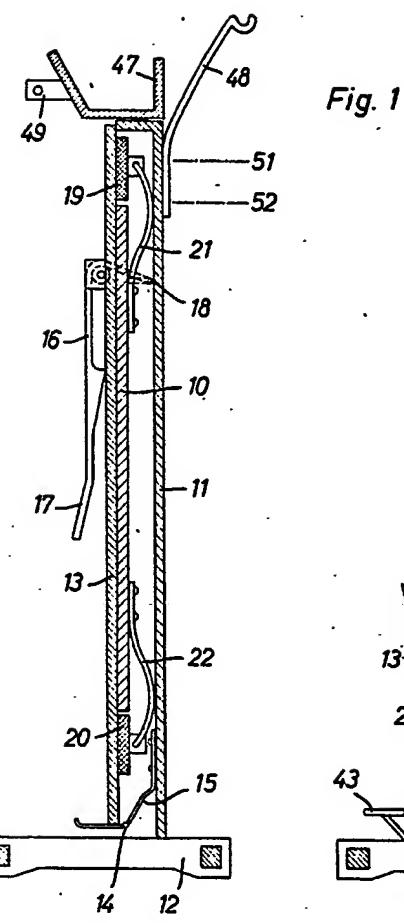
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- region of the clamping plate 120. Now the pivoted plate 113 is turned in a clockwise direction, as viewed in Figure 29, to its intermediate position where the rollers 130 engage the bend 171 of the pair of levers 116. In this position the lower ends of the trouser legs will be gripped between the clamping plate 120 and the pivoted plate 113, while at the same time the upper clamping plate 119 is still spaced from the pivoted plate 113, so that the trousers can be very easily adjusted. As was pointed out hereinbefore in connection with Figure 3, a suitable strip of friction material 131, which may be of rubber or any other suitable material having a high coefficient of friction, may be located on the top edge of plate 113 to frictionally engage the fabric of the trousers and hold the latter in their adjusted position. Once the trousers have been adjusted, the operator turns the levers 116 further in a counter-clockwise direction until these levers have the position indicated in Figure 30. It will be noted that during the approach of the pivoted plate 113 to its operated position illustrated in Figure 30, the curved springs 122 tend to straighten out so that the lower clamping plate 120 moves downwardly, and at the same time the curved springs 168 are pushed against the rod 170 so that these springs 168 straighten out to a degree greater than that of the springs 122, causing the clamping plate 119 to move upwards. As a result of this upward movement of the plate 119 and the downward movement of the plate 120 the trousers are not only pressed by the spring means 122, 168 against the plate 113 through the clamping plate 119 and 120, but in addition the trousers are longitudinally stretched at their legs.
- As is particularly apparent from Figure 30, the distance between the rod 170 and the bend 172 of the lever 116 is less than the distance from the inner end of each cutout 173 to the rollers 130 so that, when the parts have the position illustrated in Figure 30, the rod 170 is displaced to the right from the ends of the cutouts 173 and the springs 168 exert pressure against the rod 170 so as to maintain the trousers in their stretched condition.
- WHAT I CLAIM IS:—**
1. A trouser-press comprising a fixed back plate, a front plate which is pivoted about the lower edge of the fixed back plate or about a line extending parallel to and in the vicinity of the lower edge of the fixed plate, bent levers pivoted at each side of the fixed plate which permit the pivoted plate to be moved into a swung-forward position and are designed to press the pivoted plate against the fixed plate when in a position parallel to this plate, means for holding the said pivoted plate in an intermediate position between the said swung-forward position and the position parallel to the fixed plate, a clamping plate which extends horizontally and is resiliently mounted at the upper end of the fixed plate in such a manner that, when the pivoted plate is swung forwards, the clamping plate moves out from the plane of the fixed plate towards the pivoted plate and is lowered at the same time, and a gripping device at the lower end of the fixed plate so arranged that it engages the pivoted plate when the latter is moved from the swung-forward position into the said intermediate position. 70
  2. A trouser-press as claimed in Claim 1, wherein the said bent levers are designed to hold the said pivoted plate in the intermediate position. 75
  3. A trouser-press as claimed in Claim 1 or 2, wherein the said gripping device is formed by a clamping plate which extends horizontally and is resiliently mounted in such a manner that, when the pivoted plate is swung forwards, it moves out of the plane of the fixed plate towards the pivoted plate and is raised at the same time, and which, in said intermediate position of the pivoted plate, is in contact with this plate. 80
  4. A trouser-press as claimed in Claim 3, wherin additional means are provided to press the lower clamping plate against the pivoted plate. 85
  5. A trouser-press as claimed in any one of the preceding claims, wherein the clamping plate is roughened where it faces the pivoted plate. 90
  6. A trouser-press as claimed in any one of the preceding claims, wherein a strip of material with high coefficient of friction, for example rubber, is inserted in the pivoted plate at its upper edge. 95
  7. A trouser-press as claimed in any one of the preceding claims, wherein the two bent levers are joined together through a resilient horizontal bar, the centre portion of which is fastened to the fixed plate. 100
  8. A trouser-press as claimed in Claim 7, wherin the resilient horizontal bar is mounted in rubber or in another resilient material. 105
  9. A trouser-press as claimed in any one of the preceding claims, wherein the pivoted plate is provided at each lateral edge with a roller to co-act with the said bent levers which rollers are mounted on a resilient shaft fastened to the said plate. 110
  10. A trouser-press as claimed in any one of the preceding claims, wherein the trouser-press has a foot member, and wherin the pivoted plate is mounted for pivoting about a resilient shaft, the outer ends of which are supported in the foot member. 115
  11. A trouser-press as claimed in any one of the preceding claims, wherein the pivoted plate has in its released state a slight concave curvature with respect to the fixed plate. 120
  12. A trouser-press as claimed in any one of the preceding claims, wherein the pivoted plate has in its released state a slight convex curvature with respect to the fixed plate. 125
  13. A trouser-press as claimed in any one of the preceding claims, wherein the pivoted plate has in its released state a slight concave curvature with respect to the fixed plate. 130

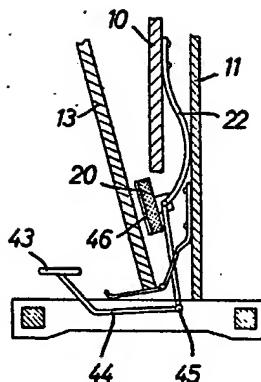
12. A trouser-press as claimed in any one of the preceding claims, wherein the pivoted plate has a longitudinal groove at the side that faces the fixed plate.
- 5 13. A trouser-press as claimed in any one of the preceding claims, wherein an open container, for instance in the form of an open box, is provided at the top of the fixed plate.
- 10 14. A trouser-press as claimed in Claim 13, wherein the said container is provided with an arm suited to support a coat-hanger.
- 15 15. A trouser-press as claimed in Claim 13 or 14, wherein one or two rods, which can be extended in the horizontal direction, are provided on the said container for hanging up underwear.
16. A trouser-press as claimed in any one of the preceding Claims 3 to 15, wherein the upper and the lower clamping plate are each covered with a material which clings well to clothing material or are roughened at the side adjacent to the pivoted plate.
- 20 17. A trouser-press as claimed in any one of the preceding Claims 3 to 15, wherein the upper and the lower clamping plates are each provided with teeth at the side facing the pivoted plate.
- 25 18. A trouser-press as claimed in one of the preceding Claims 3 to 17, wherein the upper and the lower clamping plate are each
- chamfered at the edges adjacent to the fixed plate.
19. A trouser-press as claimed in one of the preceding Claims 10 to 18 wherein the said foot member is provided with means to support shoes.
- 35 20. A trouser-press as claimed in Claim 19, wherein a bracket is provided below the foot member to accommodate the shoes.
- 40 21. A trouser-press as claimed in any one of the Claims 1 to 6 and 9 to 20, wherein the said fixed plate is supported by a frame, wherein the said two bent levers are connected by a rigid rod supported in slot-like recesses in the lateral portions of the frame, and wherein the upper clamping plate is supported by two curved resilient rods which extend in the vertical direction between the fixed plate and the said rigid rod so as to form a resilient support for the latter.
- 45 22. Trouser-presses substantially as described with reference to and as illustrated in Figures 1 to 6 or in Figures 29 and 30, or in Figures 1 to 6 modified by Figures 7 to 9, or 11, or 23 and 24, or 25 to 28, of the accompanying drawings.

For the Applicant:  
 MATTHEWS, HADDAN & CO.,  
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 London, W.C.2.

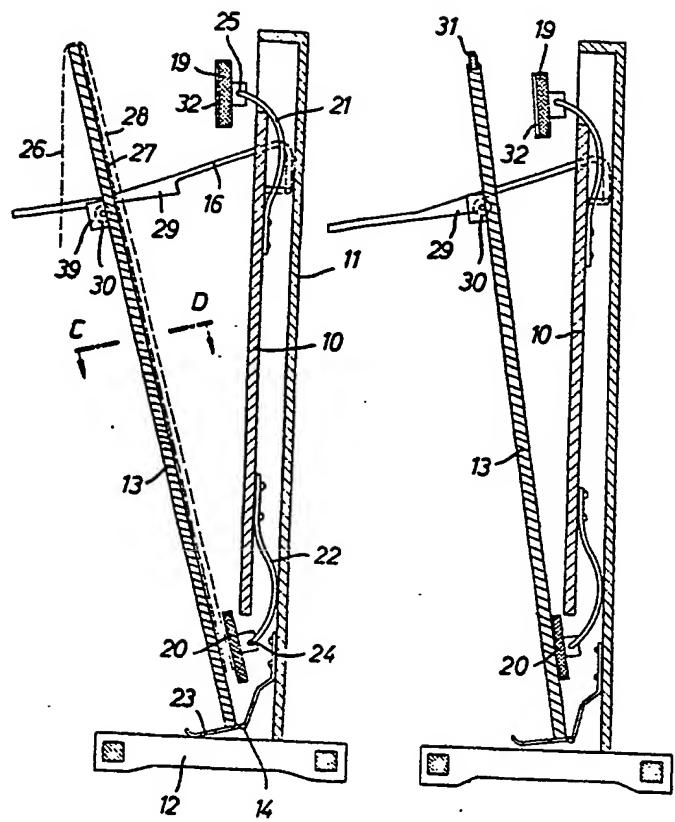
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*Fig. 12*



*Fig. 2*



*Fig. 3*

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Fig. 3

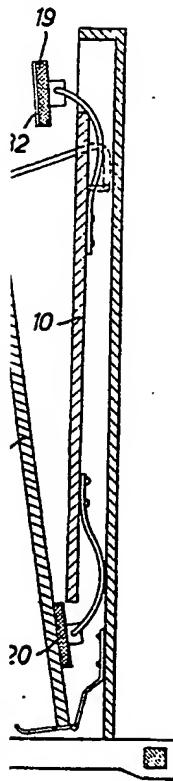


Fig. 4

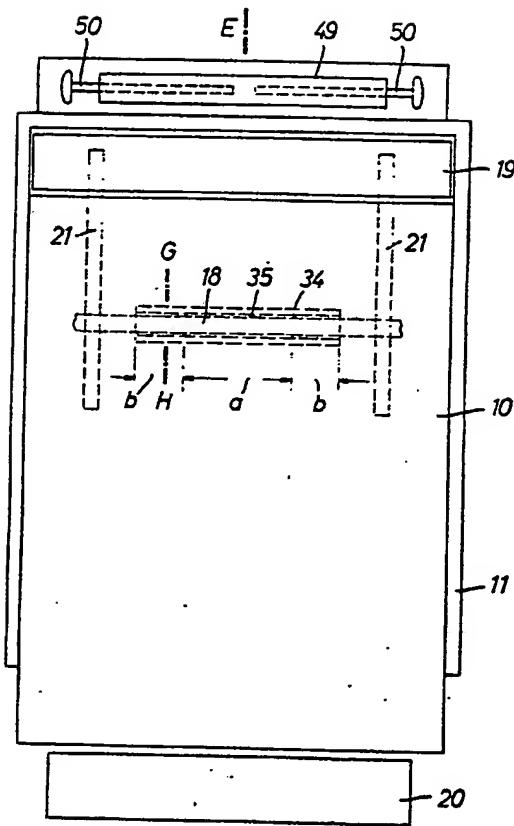


Fig. 19

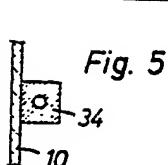


Fig. 10

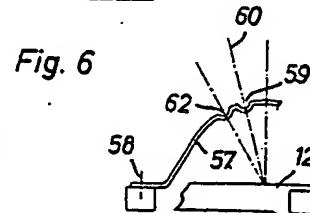
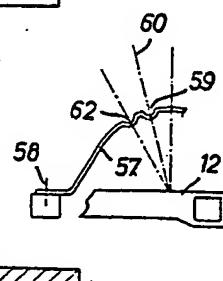
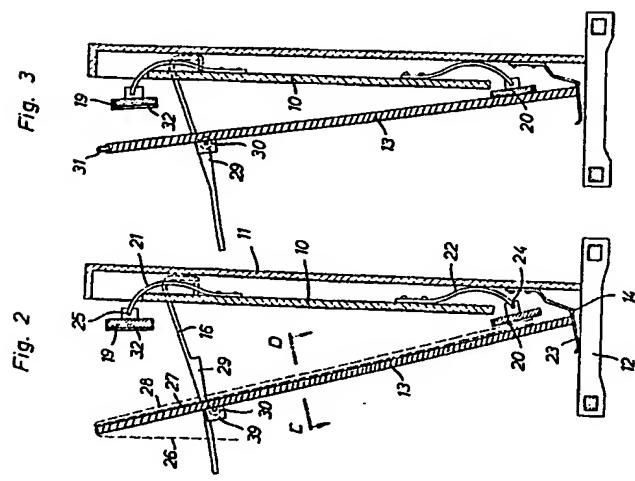
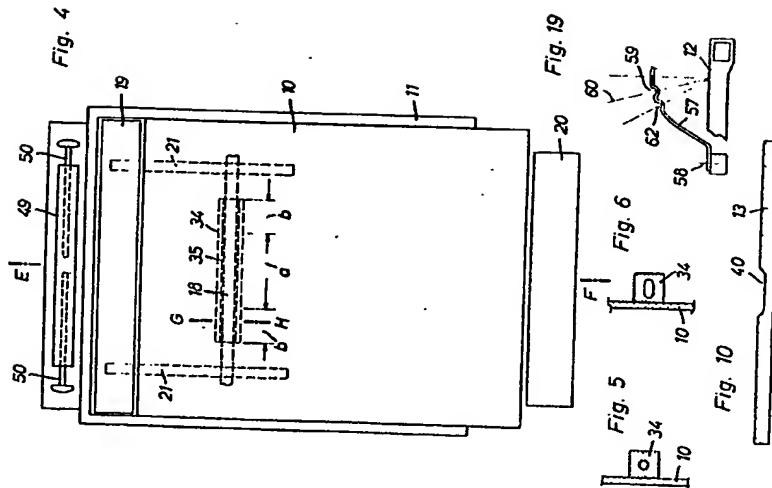


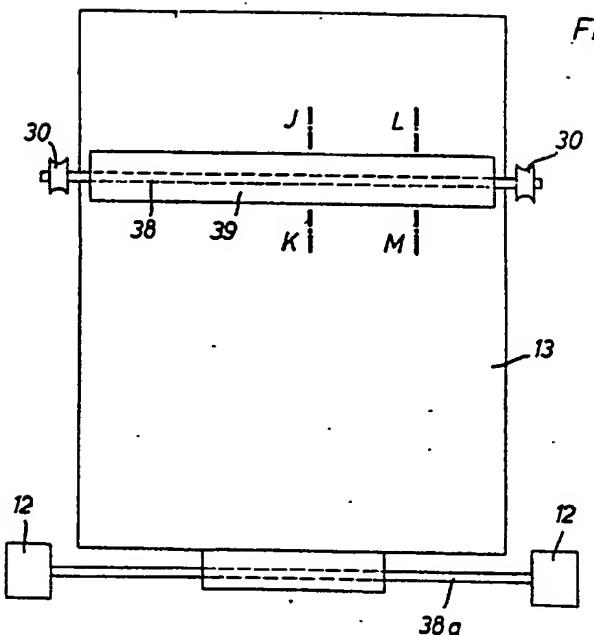
Fig. 6



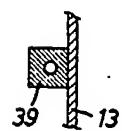
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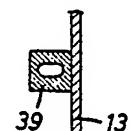
*Fig. 7*



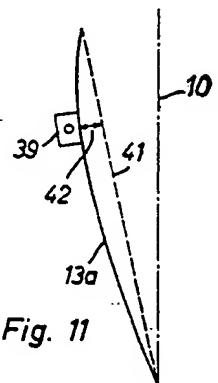
*Fig. 8*



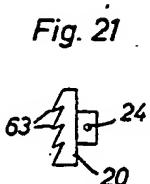
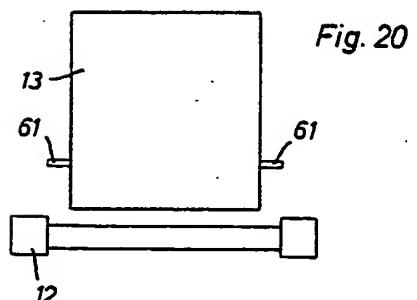
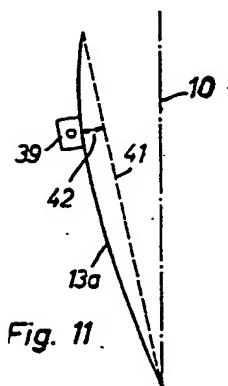
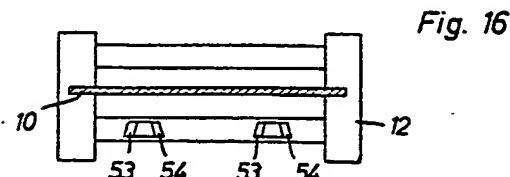
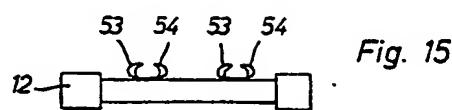
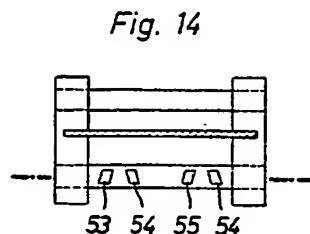
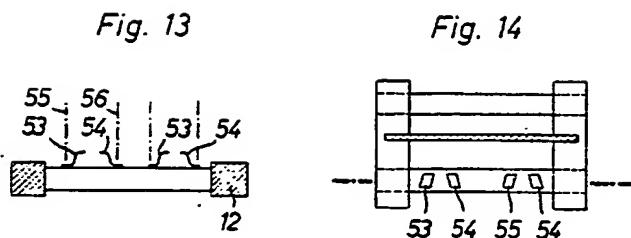
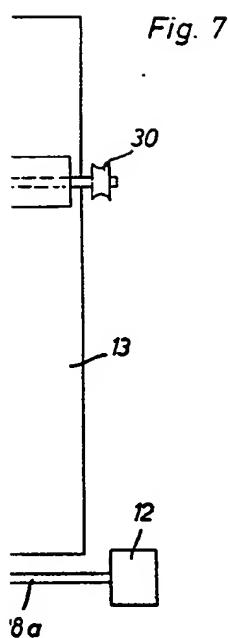
*Fig. 9*



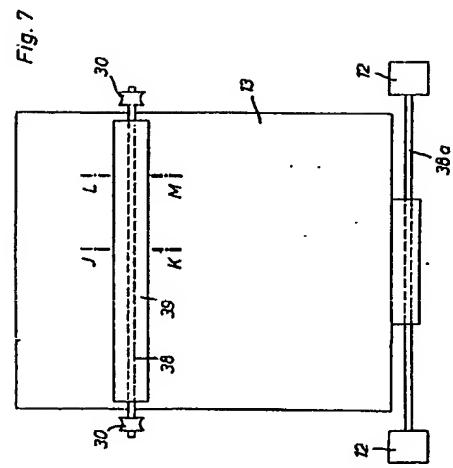
*Fig. 11*



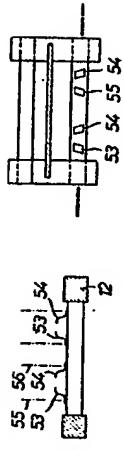
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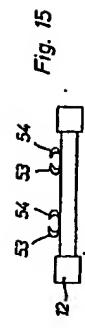
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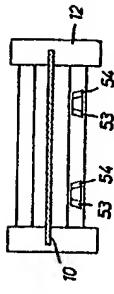
*Fig. 13*



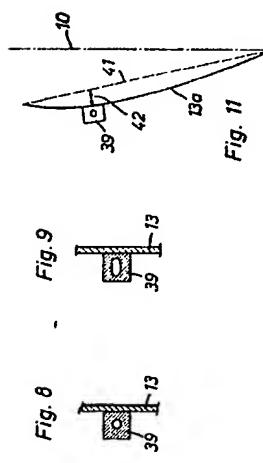
*Fig. 14*



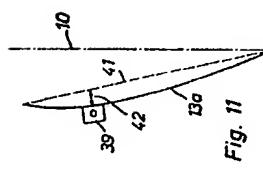
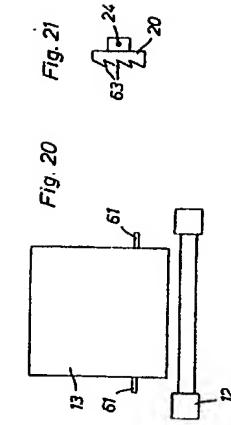
*Fig. 15*



*Fig. 16*



*Fig. 10*



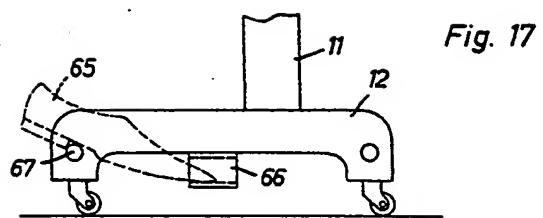


Fig. 17

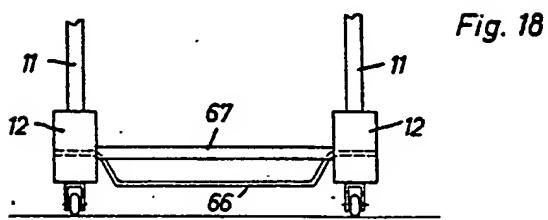


Fig. 18



Fig. 22

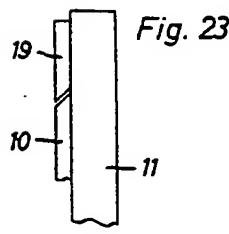


Fig. 23

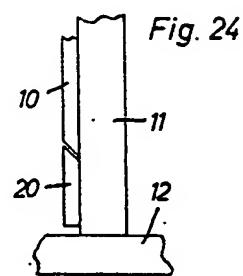


Fig. 24

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Fig. 17

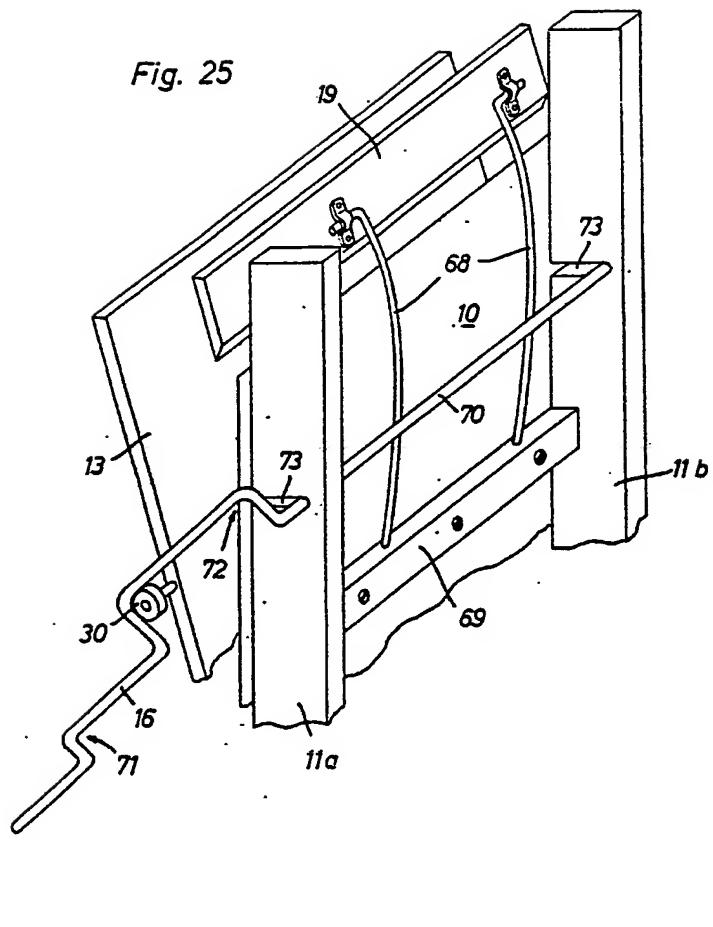
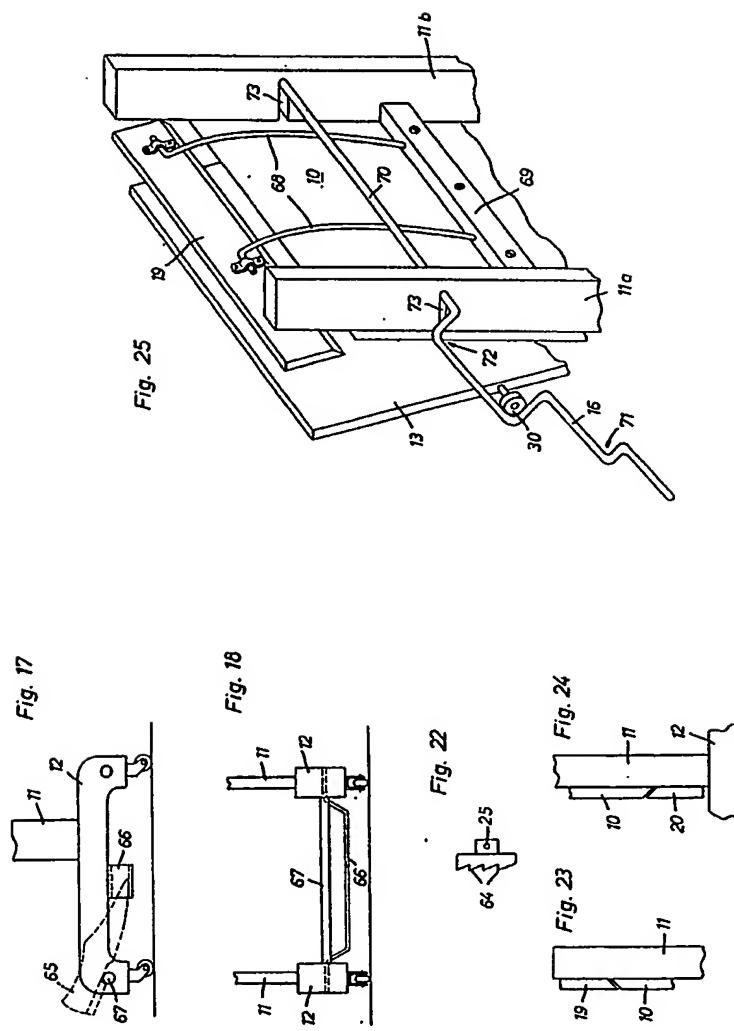


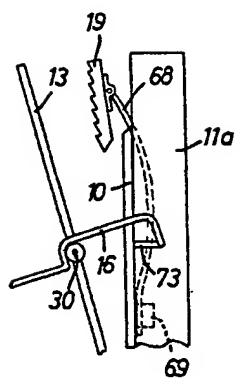
Fig. 25

Fig. 18

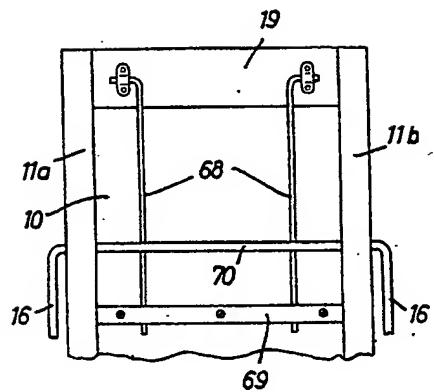
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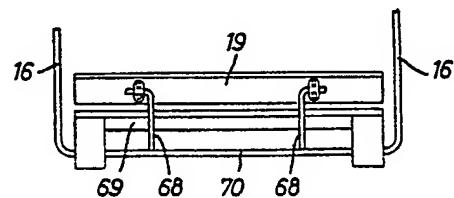
*Fig. 26*



*Fig. 27*



*Fig. 28*



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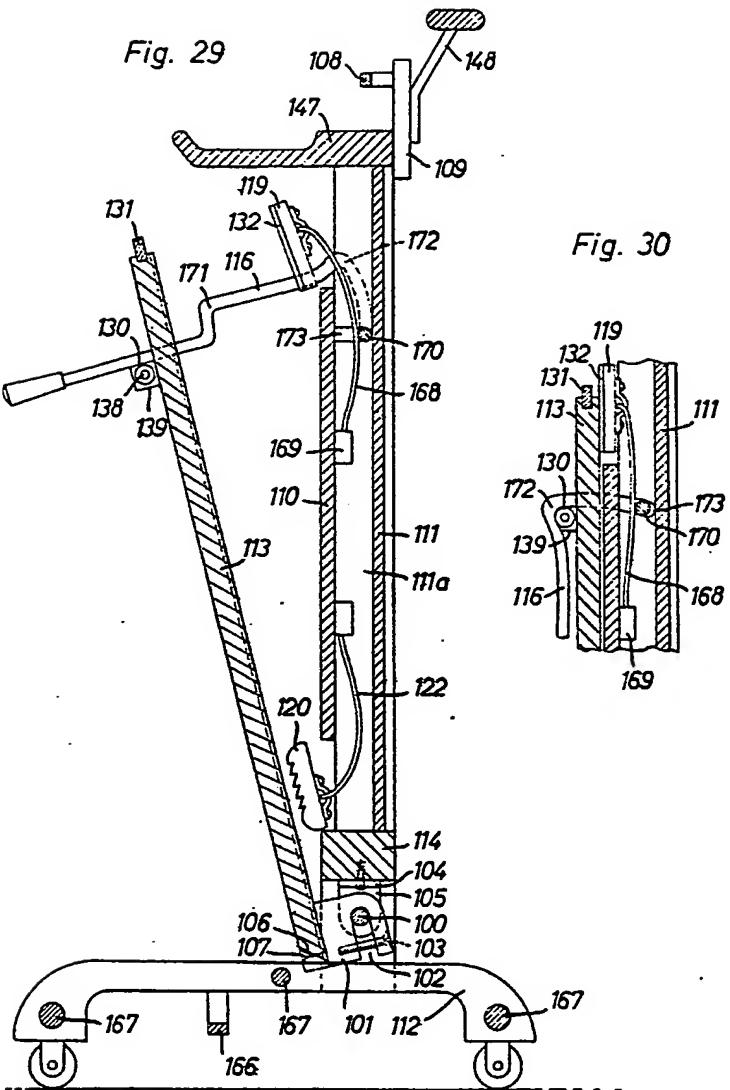
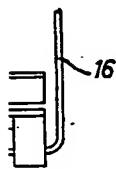
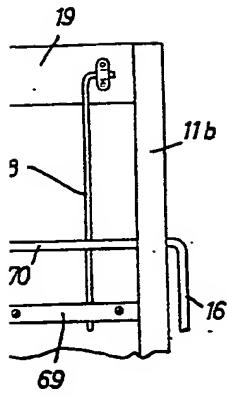
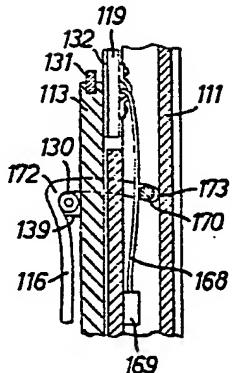
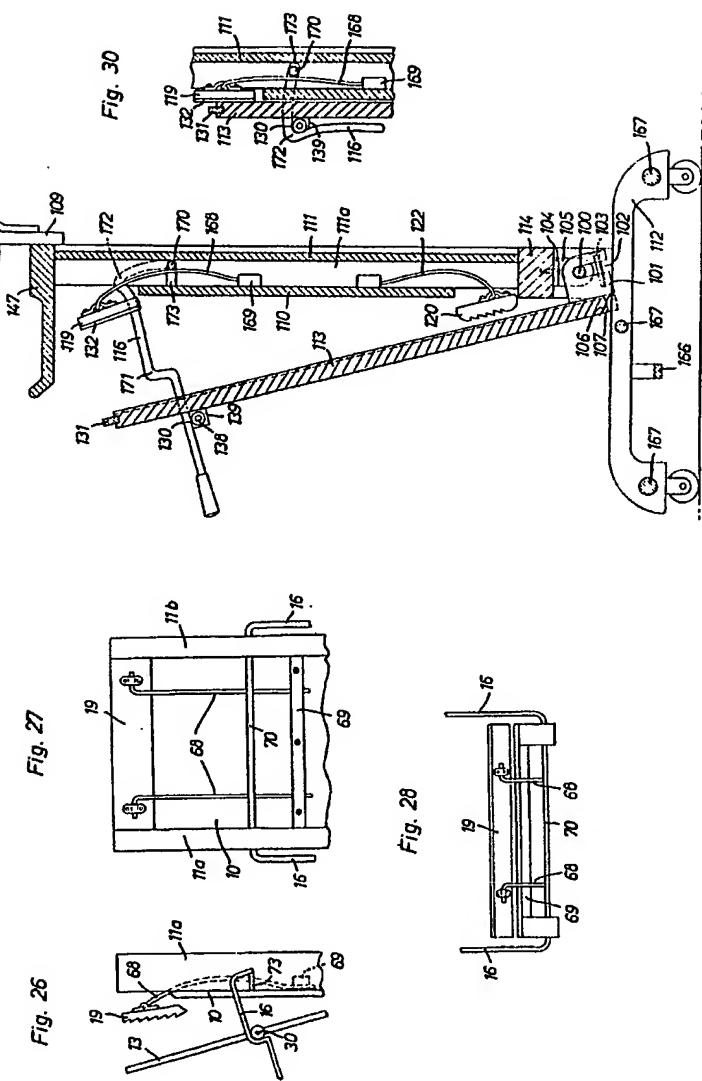


Fig. 30



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